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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

HOLDER, ANNER N

ART UNIT	PAPER NUMBER
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2621

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/542,836	Applicant(s) BURAZEROVIC ET AL.	
	Examiner ANNER HOLDER	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 July 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>04/24/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
 - (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
 - (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
 - (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
 - (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
 - (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
 - (g) BRIEF SUMMARY OF THE INVENTION.
 - (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
 - (i) DETAILED DESCRIPTION OF THE INVENTION.
 - (j) CLAIM OR CLAIMS (commencing on a separate sheet).
 - (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
 - (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).
2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Drawings

3. Figures 1-2 are should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 11 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claim language does not comply with the requirements of MPEP 2106.01 I and is directed to non-statutory subject matter as follows. Claim 11 defines a "coded bit stream representing a video stream". The scope of the presently claimed invention encompasses a "signal" (or equivalent) embodying functional descriptive material which is neither a process nor a product (i.e., a tangible "thing") and therefore does not fall within one of the four statutory classes of § 101. Rather, "signal" is a form of energy, in the absence of any physical structure or tangible material.

Should the full scope of the claim as properly read in light of the disclosure encompass non-statutory subject matter such as a “signal”, the claim as a whole would be non-statutory.

The examiner suggests amending the claim(s) to embody the computer program on “computer-readable medium” and deleting in the specification all sections defining or equivalent, the computer readable medium as a “signal”, “carrier wave”, “transmission medium”, or “paper” which are deemed non-statutory (refer to “note” Above). Any amendment to the claim should be commensurate with its corresponding disclosure.

5. Claim 12 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claim language does not comply with the requirements of MPEP 2106.01 I and is directed to non-statutory subject matter as follows. Claim 12 defines a “record carrier”. The scope of the presently claimed invention encompasses products that are not necessarily be computer readable, and thus NOT able to impart any functionality of the recited program.

Note:

A “signal” (or equivalent) embodying functional descriptive material is neither a process nor a product (i.e., a tangible “thing”) and therefore does not fall within one of the four statutory classes of § 101. Rather, “signal” is a form of energy, in the absence of any physical structure or tangible material.

Should the full scope of the claim as properly read in light of the disclosure encompass non-statutory subject matter such as a “signal”, the claim as a whole would be non-statutory.

The examiner suggests amending the claim(s) to embody the computer program on “computer-readable medium” and deleting in the specification all sections defining or equivalent, the computer readable medium as a “signal”, “carrier wave”, “transmission medium”, or “paper” which are deemed non-statutory (refer to “note” Above). An record carrier as disclosed by Applicant may include paper or a carrier wave, which is not in compliance with 35 U.S.C. 101. Any amendment to the claim should be commensurate with its corresponding disclosure.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-7 and 9-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Gomila et al. US 6,907,079 B2.

8. As to claim 1, Gomila teaches a method of coding a video signal [abstract; col. 1 lines 13-15; col. 2 lines 36-43; col. 3 lines 49-54; figs. 1-2; an encoder and decoder are disclosed for the processing of video signal] according to a predefined standard, [col. 2 lines 36-43; H.264 is the predefined standard used within the coding system and method] wherein in a given operation mode some of the tools provided by the

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predefined standard are disabled, [figs. 1-3; col. 2 lines 17-30; col. 4 lines 27-34, 35-56; col. 5 lines 57-64; H.264 standard applies to the coding of video signals and the tools implemented within such systems including but not limited to deringing / deblocking of signals, inter and intra frames; in the intra prediction mode bidirectional frames are disabled as well as the use of one or more reference picture] and wherein an identification of the disabled tools is included in the bit-stream, [figs. 1-3; col. 2 lines 36-48; col. 3 lines 54-57; the output bitstream provided to the decoder contains coding parameters example the coding incorporated with the information required for the decoding of the video stream] the disabled tools being one or more out of the group of: bidirectional predictive coding of pictures or picture parts use of a de-blocking filter use of more than one reference picture. [figs. 1-3; col. 2 lines 17-30; col. 4 lines 27-34, 35-56; col. 5 lines 57-64; H.264 standard allows the disabling of the tools implemented within such systems including but not limited to deringing / deblocking of signals, inter and intra frames; the intra prediction mode bidirectional frames are disabled as well as the use of one or more reference picture]

9. As to claim 2, Gomila teaches wherein the given operation mode is a profile. [col. 2 lines 36-43; H.264 inherently supports several profile level; MPEG high profile level supports high definition video]

10. As to claim 3, Gomila teaches wherein the profile is used to code high definition video content such as a high definition movie. [col. 2 lines 36-43; H.264 inherently supports several profiles; MPEG high profile supports high definition video]

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11. As to claim 6, Gomila teaches wherein the coding uses no rate-distortion optimization. [fig. 1-3; coding control enables to adjust or set the rate-distortion to zero, no rate-distortion optimization]

12. As to claim 7, Gomila teaches wherein adaptive block size transforms are used. [figs. 1-3; inherently the MPEG feedback loop of the coding system allows for adaptive block sizes]

13. As to claim 9, Gomila teaches wherein the coding is performed in conformance with the H.264 standard. [col. 2 lines 36-43]

14. As to claim 10, Gomila teaches an encoder [abstract; fig. 1 (100); col. 3 lines 49-54; a encoder are disclosed for the processing of video signal] comprising means for coding a video signal [abstract; col. 1 lines 13-15; col. 2 lines 36-43; col. 3 lines 49-54; a encoder and decoder are disclosed for the processing of video signal] according to a predefined standard, [col. 2 lines 36-43; H.264 is the predefined standard used within the coding system and method] wherein in a given operation mode some of the tools provided by the predefined standard are disabled, means for including an identification of the disabled tools in the bit-stream, the disabled [figs. 1-3; col. 2 lines 17-30; col. 4 lines 27-34, 35-56; col. 5 lines 57-64; H.264 standard applies to the coding of video signals and the tools implemented within such systems including but not limited to deringing / deblocking of signals, inter and intra frames; in the intra prediction mode bidirectional frames are disabled as well as the use of one or more reference picture] tools being one or more out of the group of: bidirectional predictive coding of pictures or picture parts use of a de-blocking filter use of more than one reference picture. [figs. 1-

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3;col. 2 lines 17-30; col. 4 lines 27-34, 35-56; col. 5 lines 57-64; H.264 standard allows the disabling of the tools implemented within such systems including but not limited to deringing / deblocking of signals, inter and intra frames; the intra prediction mode bidirectional frames are disabled as well as the use of one or more reference picture]

15. As to claim 11, Gomila teaches coded bit-stream representing a video signal, the bit-stream including an identification of disabled tools, which disabled tools were disabled in the coding of the coded bit-stream, the disabled tools being one or more out of the group of: bidirectional predictive coding of pictures or picture parts use of a de-blocking filter use of more than one reference picture. [figs. 1-3;col. 2 lines 17-30; col. 4 lines 27-34, 35-56; col. 5 lines 57-64; H.264 standard allows the disabling of the tools implemented within such systems including but not limited to deringing / deblocking of signals, inter and intra frames; the intra prediction mode bidirectional frames are disabled as well as the use of one or more reference picture]

16. As to claim 12, Gomila teaches a record carrier having stored thereon a coded bit-stream as claimed in claim 11. [col. 3 lines 16-35; col.6 lines 38-55]

17. As to claim 13, Gomila teaches wherein the decoder [fig. 2 (200); fig. 3 (300); is in conformance with a predefined standard except that it is constraint by not providing the disabled tools. [Gomila - col. 2 lines 36-43]

Claim Rejections - 35 USC § 103

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

19. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gomila et al. US 6,907,079 B2 as applied to claim 1 above, and further in view of Ishihara et al. US 2002/0009144 A1.

20. As to claim 4, Gomila teaches wherein bidirectionally predictively coded pictures and/or slices are disabled, wherein the de-blocking filter is disabled, [figs. 1-3; col. 2 lines 17-30; col. 4 lines 27-34, 35-56; col. 5 lines 57-64; H.264 standard applies to the coding of video signals and the tools implemented within such systems including but not limited to deringing / deblocking of signals, inter and intra frames] and wherein the number of reference pictures to be used for prediction is constrained to one. [figs. 1-3; col. 2 lines 17-30; col. 4 lines 27-34, 35-56; col. 5 lines 57-64; H.264 standard allows the disabling of the tools implemented within such systems including but not limited to deringing / deblocking of signals, inter and intra frames; the intra prediction mode bidirectional frames are disabled as well as the use of one or more reference picture; further it is inherent to MPEG to support predicted frames which uses one reference picture]

Gomila does not explicitly teach wherein at least one of the block sizes for inter prediction which are smaller than 8.times.8 pixels is excluded.

Ishihara teaches wherein at least one of the block sizes for inter prediction which are smaller than 8.times.8 pixels is excluded. [fig. 28; ¶ 0015, 0277; pg 56 lines 6-11; a full block is 16x16 a half mode is 8x8]

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the full block prediction mode teachings of Ishihara with the coding device of Gomila allowing for increased accuracy in predictive images.

21. As to claim 5, Gomila (modified by Ishihara) teaches wherein all block sizes for inter prediction which are smaller than 8.times.8 pixels are excluded. [fig. 28; ¶ 0015, 0277; pg 56 lines 6-11; a full block is 16x16 a half mode is 8x8]

22. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gomila et al. US 6,907,079 B2 as applied to claim 1 above, and further in view of Eerenberg US 6,621,979 B1.

23. As to claim 8, Gomila teaches the limitations of claim 1.

Gomila does not explicitly teach wherein the group of picture length is fixed to 12.

Eerenberg teaches wherein the group of picture length is fixed to 12. [figs. 6a-7c; col. 7 lines 32-53]

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Eerenberg with the device of Gomila enabling accurate reconstruction of encoded pictures. [col. 7 lines 44-45]

Conclusion

24. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANNER HOLDER whose telephone number is (571)270-1549. The examiner can normally be reached on M-W, M-W 8 am-3 pm EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on 571-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Anner Holder/
Examiner, Art Unit 2621

/Tung Vo/

Primary Examiner, Art Unit 2621